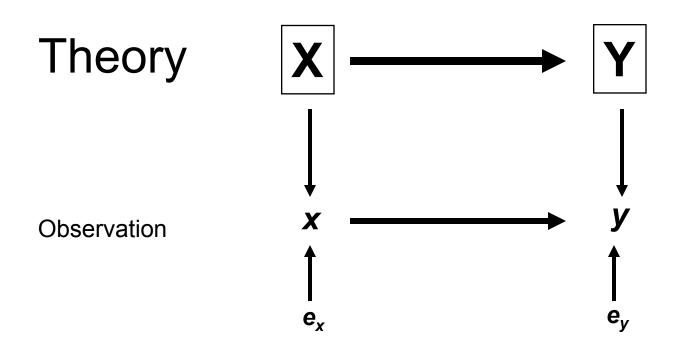
Measurement

17.871

Mapping from the Abstract to the Measurement

- Some abstract things we try to measure
 - Alienation
 - □ Traditional morality
 - Democracy
 - □ Party identification
 - □ Fear of defeat
 - □ Terrorism
 - □ Ideology

Mapping from the abstract to the measurement





Sources of Error in Measurement

- Random and Systematic
 - □ Conceptual or design error
 - □ Survey question wording
 - Transcription, calculation & mechanization errors



What to Do About Error

- Practice safe data
 - Know where your data come from
 - □ Use multiple measurement techniques!!!!!
 - Collect as much data as possible and disaggregate
 - □ Show your data and watch for anomalies
 - Run the summarize command before all analyses

Practical things to do about measurement

- Distinction between a measure and an indicator
 - Measure: straightforward quantification of a variable of interest
 - Indicator: quantification of a variable that is believed (or known) to be highly correlated with the "real" variable of interest

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Examples of Measures

- Income in \$\$
- Age in years
- Votes
- Number of wars
- Campaign contributions
- Measurement issues tend to focus on the quality of the data-gathering method, especially sampling – e.g., Iraqi deaths

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Examples of Indicators

- Most measures are really indicators
- Public opinion
 - Party identification
 - □ Trust in government
 - □ Ideology
- Economics
 - ☐ Gross domestic (national) product
- Characterizations of political systems
 - □ Freedom
 - Transparency
 - Democracy
- Quality of colleges

Multiple-measure indicators

"Moral traditionalism" battery

The newer lifestyles are contributing to the breakdown of our society.

The world is always changing and we should adjust our view of moral behavior to those changes.

There is too much sexual freedom and loose living today.

We should be more tolerant of people who chose to live according to their own moral standards, even if they are very different from our own.

Changes in lifestyles, such as divorce and men and women living together without being married are signs of increasing moral decay.

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Other Multiple-Variable Indicators

- Americans for Democratic Action Support Scores
- Freedom House freedom assessment
- MIT Teaching Quality
- Transparency International's "Corruption Perceptions Index"
- DNominate Scores

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Instructions for data entry

- The first entry in a column should be a unique variable name that describes the variable, e.g., "Bush_vote" or "male"
- Variable names and data should have
 - no spaces and
 - No special characters (e.g., \,\$,*,@, #)
- Data should always be entered numerically (e.g., Republican vote coded to 1, Democratic vote coded to 0), unless data are unique strings, e.g., proper names



Instructions for data entry

- Each column should code for a single variable
 - ☐ If concepts have multiple components, try to break them into separate variables
 - E.g., if you are interested in Democratic incumbents versus Republican incumbents, code the party as one variable and incumbency as another
- In Excel, format the columns as numbers, not dollars or percentages
- Include the source information for variables in the same file as a comment on the cell, on a separate sheet or page, or to the left of the data columns
- Whenever possible, both print or photocopy the source of the data and save the source in the same folder as the data